

98



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,825	12/10/2001	Christian Bolik	DE920000124US1	7189
45216	7590	09/20/2005	EXAMINER	
KUNZLER & ASSOCIATES			BHATIA, AJAY M	
8 EAST BROADWAY			ART UNIT	
SUITE 600			PAPER NUMBER	
SALT LAKE CITY, UT 84111			2145	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/015,825	BOLIK ET AL.	
	Examiner	Art Unit	
	Ajay M. Bhatia	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Response to Arguments

Applicant's arguments filed 6/29/05 have been fully considered but they are not persuasive. Examiner has full-considered arguments addressing claims 1, 19, 20 and claim 15. Examiner would like to note that all other arguments address dependent claims, which the applicant relies upon the above-mentioned arguments, and therefore are also not persuasive.

Arguments addressing claims 1, 19 and 20 discuss the 102(e) rejection of Cabrera (U.S. Patent 6,269,382). Applicant discloses that the claims include the limitations "prespecifying a scanning scope;" and "scanning the managed file system until the scanning scope is reached;." Applicant goes on to discuss that Cabrera fails to teach these limitations. In light of applicant's arguments examiner would like the applicant to review Col. 10 lines 25-30, in which candidates for pre-migration are identified, Col. 10 lines 46-53, in which the predefined parameters are defined, Col. 4 lines 51-55, in which migration criteria is specified, Col. 5 lines 1-25, in which files that are designated as pre-migration state are fully migrated only once they meet all the qualifications of the migration criteria, Col. 5 lines 36-50, in which a file that was selected as a pre-migration file no longer meets the criteria for migration and is therefore not migrated. Examiner interprets Cabrera as applied to the limitation as the scanning scope as all files that are in this pre-migration state, and the prespecifying scope is the criteria for files to be designated as a pre-migration file. Additionally, "scanning the managed file system until the scanning scope is reached" is the files that are currently

Art Unit: 2145

pre-migrated which are scanned through to find files which meet the migration requirements so that they can be removed from the managed file system. Also Cabrera provides in Col. 12 lines 36-56, an additional prespecifying scanning scope of requirement of additional space, therefore the system searches through the pre-migrated files and removes them from the managed file system in order to achieve the sufficient local storage space.

In response to the argument directed toward claim 15, applicant suggest that Cabrera fails to teach "a fourth means for reconciling the managed file system." Examiner would like to note this feature is inherent to HSM. Cabrera teaches the "reconciling the manage file system" in Col. 21 line 10-31, in which Cabrera recalled data to local storage. Additionally in Col. 14 lines 5-35, in which after a file is migrate a stub file is retained which allows for restoration of the file to local storage.

Please note the grounds of rejection have not changed. Since applicant has not persuade Examiner that the claimed limitations overcome the prior art. Claims 1-20 are still anticipated by Cabrera.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 2145

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Cabrera et al. (U.S. Patent 6,269,382 referred to as Cabrera).

2. For claim 1, Cabrera teaches, a method of managing a hierarchical storage management (HSM) environment, the environment including at least one HSM server and at least one file server having stored a managed file system, wherein the at least one HSM server and the at least one file server are interconnected via a network and wherein digital data files are migrated temporarily from the at least one file server to the at least one HSM server, the method comprising:

providing at least one list for identifying candidate data files to be migrated; (see Cabrera, Col. 10 lines 25-30, Col. 10 lines 46-53, Col. 4 lines 51-55)

prespecifying a scanning scope; (see Cabrera, Col. 10 lines 25-30, Col. 10 lines 46-53, Col. 4 lines 51-55)

scanning the managed file system until the scanning scope is reached; (see Cabrera, Col. 5 lines 1-25, Col. 5 lines 36-50, Col. 12 lines 36-56)

selecting migration candidate data files according to at least one attribute; (see Cabrera, Col. 10 lines 46-53)

recording the selected migration candidate data files in the provided at least one list for identifying candidate data files; and (see Cabrera, Col. 10 lines 25-30, Col. 10 lines 46-53, Col. 4 lines 51-55)

migrating at least part of the selected candidate data files identified in the at least one list for identifying candidate data files from the file server to the HSM server. (see Cabrera, Col. 9 line 53 to Col. 10 line 17, Col. 4 lines 8-19, Col. 10 lines 45-53)

3. For claim 2, Cabrera teaches, the method according to claim 1, wherein the scanning scope is determined by the number of candidate data files and wherein the managed file system is scanned until having reached the prespecified number of migration candidate data files. (see Cabrera, Col. 14 line 5 to Col. 15 line 25)

4. For claim 3, Cabrera teaches, the method according to claim 1, wherein the scanning scope is determined by the total amount of data for the candidate data files and wherein the managed file system is scanned until having the prespecified amount of data. (see Cabrera, Col. 10 line 65 to Col. 11 line 6)

5. For claim 4, Cabrera teaches, the method according to claim 1, wherein the scanning of the managed file system is resumed at a location of the managed file system where a previous scanning is left off, and continued accordingly. (see Cabrera, Col. 10 lines 45-53)

6. For claim 5, Cabrera teaches, the method according to claim 1, wherein replacing a migrated data file in the managed file system by a stub file providing at least information about the location of the migrated data file on the HSM server. (see Cabrera, Col. 9 line 53 to Col. 10 line 17)

7. For claim 6, Cabrera teaches, the method according to claim 1, further comprising monitoring a current state of the managed file system and initiating automigration dependent on the monitored current state of the managed file system. (see Cabrera, Col. 12 line 22-67)

8. For claim 7, Cabrera teaches, the method according to claim 6, comprising the further steps of automigrating candidate data files with respect to the list for identifying candidate data files and assigning a unique identifier to each of the migrated candidate data files. (see Cabrera, Col. 16 line 26-52)

9. For claim 8, Cabrera teaches, the method according to claim 7, wherein the unique identifier is specific to the underlying file system allowing direct access to a migrated data file. (see Cabrera, Col. 16 line 26-52)

10. For claim 9, Cabrera teaches, the method according to any of claim 6, wherein providing two lists for identifying candidate data files, whereby the first list is generated and/or updated by a scanning process and whereby the second list is used by a

Art Unit: 2145

automigration process, and whereby the automigration process gathers the first list from the scanning process when all candidate data files of the second list are migrated. (see Cabrera, Col. 29 lines 27-44)

11. For claim 10, Cabrera teaches, the method according to any of claim 9, wherein the automigration process is performed by a master/slave concept where the master controls the automigration process and selects at least one slave to migrate candidate data files provided by the master. (see Cabrera, Col. 13 lines 3-27)

12. For claim 11, Cabrera teaches, the method according to claim 1, comprising the additional steps of ranking and sorting the candidate data files contained in the at least one list for identifying candidate data files, in particular with respect to the a file size and/or time stamp of the data files contained in the at least one list for identifying candidate data files. (see Cabrera, Col. 10 lines 45-53)

13. For claim 12, Cabrera teaches, the method according to claim 1, wherein the scanning of the managed file system is initiated dependent on expiration of a prespecified wait interval or initiated by the automigration process. (see Cabrera, Col. 10 lines 17-30)

14. For claim 13, Cabrera teaches, a method of reconciling a managed file system migrated from a file server to an hierarchical storage management (HSM) server via a

Art Unit: 2145

network in accordance with the method according to any of claims 7 to 12, with a current state of the managed file system on the file server, wherein data files migrated to the HSM server are recorded in a list of migrated data files having a unique identifier for each of the migrated data files, the method comprising the steps of:

querying the list of migrated data files migrated from the managed file server to the HSM server; (see Cabrera, Col. 5 lines 1-25, Col. 5 lines 36-50, Col. 10 lines 25-30, Col. 10 lines 46-53)

for each file entry in the list of migrated data files, retrieving from the managed file system at least one attribute of the migrated data file that is identified by the corresponding unique identifier; (see Cabrera, Col. 5 lines 1-25, Col. 5 lines 36-50, Col. 10 lines 25-30, Col. 10 lines 46-53)

comparing the retrieved attributes with the corresponding attributes stored in the list of migrated data files; and (see Cabrera, Col. 10 lines 25-30, Col. 10 lines 46-53, Col. 4 lines 51-55)

updating the HSM server for the migrated managed file system dependent on the results of the preceding step of comparing. (see Cabrera, Col. 30 line 18 to Col. 31 line 62, Col. 10 lines 25-30, Col. 10 lines 46-53, Col. 4 lines 51-55)

15. For claim 14, Cabrera teaches, the method according to claim 13, wherein performing the steps of claim 13 by a reconciling process and wherein the reconciling process requests the list of migrated data files via the network from the HSM server. (see Cabrera, Col. 30 line 18 to Col. 31 line 62)

16. Claims 15-20 lists all the same elements of claims 1-14, but in system and product form rather than method form. Therefore, the supporting rationale of the rejection to claims 1-14 applies equally as well to claims 15-20.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay M. Bhatia whose telephone number is (571)-272-3906. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2145

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER
RUPAL DHARIA
SUPERVISORY PATENT EXAMINER